


B is phenyl, naphthyl,  
5-membered hetaryl, containing one to four nitrogen atoms or one to three  
nitrogen atoms and one sulfur or oxygen atom or  
6-membered hetaryl containing one to four nitrogen atoms; where the  
cyclic groups may carry one to four radicals R<sup>a</sup>

M R<sup>a</sup> is halogen, cyano, nitro, hydroxyl, amino, carboxyl, aminocarbonyl, alkyl,  
haloalkyl, alkenyl, haloalkenyl, alkenyloxy, haloalkenyloxy, alkynyl,  
haloalkynyl, alkynyloxy, haloalkynyloxy, alkoxy, haloalkoxy, alkylthio,  
haloalkylthio, alkylamino, dialkylamino, alkylcarbonyl, alkoxycarbonyl,  
alkylcarbonyloxy, alkylaminocarbonyl, dialkylaminocarbonyl,  
alkylcarbonylamino, alkoxycaronylamino, alkylcarbonyl-N-alkylamino or  
alkoxycarbonyl-N-alkylamino, where the alkyl groups in these radicals  
contain 1 to 6 carbon atoms and the alkenyl or alkynyl groups mentioned  
in these radicals contain 2 to 8 carbon atoms;  
cycloalkyl, cycloalkoxy, cycloalkylthio, cycloalkylamino, cycloalkyl-N-  
alkylamino, heterocyclyl, heterocyclyloxy, heterocyclylthio,  
heterocyclylamino or heterocyclyl-N-alkylamino, where the cyclic  
systems contain 3 to 6 ring members and the alkyl groups in these  
radicals contain 1 to 6 carbon atoms; unsubstituted or R<sup>b</sup>-substituted  
phenyl, phenyloxy, phenylthio, phenylamino, phenyl-N-alkylamino,  
phenylalkoxy, phenylalkylthio, phenylalkylamino, phenylalkyl-N-  
alkylamino, hetaryl, hetaryloxy, hetarylthio, hetarylamino, hetaryl-N-

alkylamino, hetarylalkoxy, hetarylalkylthio, hetarylalkylamino and hetarylalkyl-N-alkylamino, where the hetaryl radicals contain 5 or 6 ring members and the alkyl groups in these radicals contain 1 to 6 carbon atoms, where

$R^b$  is halogen, cyano, nitro,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -alkoxy,  $C_1$ - $C_4$ -haloalkoxy,  $C_1$ - $C_4$ -alkylamino, di- $C_1$ - $C_4$ -alkylamino or  $C_1$ - $C_4$ -alkyl thio ;

and/or one or two of the following radicals

- 
- formyl,
  - $CR^{iii}=NOR^{iv}$  where  $R^{iii}$  is hydrogen, alkyl, cycloalkyl or phenyl and  $R^{iv}$  is alkyl, alkenyl, haloalkenyl, alkynyl or phenylalkyl (where the alkyl groups mentioned contain 1 to 6 carbon atom and the cycloalkyl groups, alkenyl groups and alkynyl groups mentioned contain 3 to 8 carbon atoms),
  - $NR^v-CO-D-R^{vi}$  where  $R^v$  is hydrogen, hydroxyl,  $C_1$ - $C_6$ -alkyl,  $C_2$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkynyl,  $C_1$ - $C_6$ -alkoxy,  $C_2$ - $C_6$ -alkenyloxy,  $C_2$ - $C_6$ -alkynyloxy,  $C_1$ - $C_6$ -alkoxy- $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_6$ -alkoxy- $C_1$ - $C_6$ -alkoxy or  $C_1$ - $C_6$ -alkoxycarbonyl,  $R^{vi}$  is hydrogen,  $C_1$ - $C_6$ -alkyl,  $C_2$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkynyl,  $C_3$ - $C_6$ -cycloalkyl,  $C_3$ - $C_6$ -cycloalkenyl, phenyl, phenyl- $C_1$ - $C_6$ -alkyl, hetaryl or hetaryl- $C_1$ - $C_6$ -alkyl and D is a direct bond, oxygen or nitrogen, where the nitrogen may carry one of the groups mentioned under  $R^{vi}$ ,

and/or where two adjacent carbon atoms of the cyclic systems may carry a  $C_3$ - $C_5$ -alkylene,  $C_3$ - $C_5$ -alkenylenes, oxy- $C_2$ - $C_4$ -alkylene, oxy- $C_1$ - $C_3$ -alkyleneoxy, oxy- $C_2$ - $C_4$ -alkenylenes, oxy- $C_2$ - $C_4$ -alkenylenes or

butadienediyl group, where these bridges for their part may be partially or fully halogenated and/or may carry one to three of the following radicals:

- C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy and C<sub>1</sub>-C<sub>4</sub>-alkylthio;

A is C=O, C=S or SO<sub>2</sub>;

R<sup>1</sup> is C<sub>2</sub>-C<sub>10</sub>-alkyl, C<sub>1</sub>-C<sub>10</sub>-haloalkyl, C<sub>3</sub>-C<sub>10</sub>-alkenyl, C<sub>3</sub>-C<sub>10</sub>-haloalkenyl, C<sub>3</sub>-C<sub>10</sub>-alkynyl or C<sub>3</sub>-C<sub>10</sub>-haloalkynyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkenyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkynyl, or phenyl or naphthyl,

5- or 6-membered heterocyclyl, containing, in addition to carbon ring members, one to three nitrogen atoms and/or one oxygen or sulfur atom or one or two oxygen and/or sulfur atoms or

5-membered hetaryl, containing one to four nitrogen atoms or one to three nitrogen atoms and one sulfur or oxygen atom or

6-membered hetaryl, containing one to four nitrogen atoms;

where the cyclic groups may carry one to four radicals R<sup>a</sup>;

R<sup>2</sup> is hydrogen;

R<sup>3</sup> is hydrogen, nitro, cyano, N(R')<sub>2</sub>, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, C<sub>2</sub>-C<sub>4</sub>-alkenyl, C<sub>2</sub>-C<sub>4</sub>-haloalkenyl, C<sub>2</sub>-C<sub>4</sub>-alkynyl or C<sub>2</sub>-C<sub>4</sub>-haloalkynyl, where

R' independently of one another are hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl;

or R<sup>2</sup> and R<sup>3</sup> together are a group

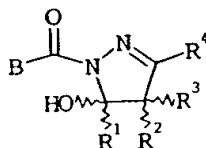
=O, =S or =N-O-R<sup>5</sup>, where

R<sup>5</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>3</sub>-C<sub>6</sub>-alkenyl, C<sub>3</sub>-C<sub>6</sub>-haloalkenyl, C<sub>3</sub>-C<sub>6</sub>-alkynyl or C<sub>3</sub>-C<sub>6</sub>-haloalkynyl;

R<sup>4</sup> is hydrogen, halogen, nitro, cyano, N(R')<sub>2</sub>, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, COOR', hetaryl or heterocyclyl [;

for controlling harmful fungi].

2. (amended) A 5-hydroxypyrazoline of the formula IA [as set forth in claim 1],



in which in case a:

R<sup>3</sup> is nitro, cyano, N(R')<sub>2</sub>, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-haloalkoxy, C<sub>2</sub>-C<sub>4</sub>-alkenyl, C<sub>2</sub>-C<sub>4</sub>-haloalkenyl, C<sub>2</sub>-C<sub>4</sub>-alkynyl or C<sub>2</sub>-C<sub>4</sub>-haloalkynyl;

or R<sup>2</sup> and R<sup>3</sup> together are a group

=O, =S or =N-O-R<sup>5</sup>,

R<sup>4</sup> is hydrogen, halogen, nitro, cyano, N(R')<sub>2</sub>, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl or heterocyclyl;

and B, R<sup>1</sup> and R<sup>2</sup> are each as defined in claim 1, or

in case b:

B is naphthyl, heterocyclyl, hetaryl or substituted phenyl, where the cyclic groups can be substituted by R<sup>a</sup>, and

R<sup>3</sup> is hydrogen,

R<sup>4</sup> is hydrogen, halogen, nitro, cyano, N(R')<sub>2</sub>, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl or heterocyclyl;

and R<sup>1</sup> and R<sup>2</sup> are each as defined in claim 1;

where R<sup>4</sup> is not methyl if R<sup>1</sup> is [methyl,] tert-butyl or phenyl and the group B is phenyl which is substituted by 3-bromo, 4-halo, 4-methyl, 4-methoxy, 4-nitro, 4-dimethylamino or 4-fluoro-3-methyl, and

where R<sup>4</sup> is not methyl or [tert-butyl] CF<sub>3</sub> if R<sup>1</sup> is CF<sub>3</sub>, C<sub>3</sub>F<sub>7</sub>, C<sub>6</sub>F<sub>13</sub>, [or] C<sub>8</sub>F<sub>17</sub>, or tert-butyl

R<sup>2</sup> and R<sup>3</sup> are hydrogen and the group B is phenyl which is [unsubstituted or] substituted by 4-bromo, 4-methyl, 4-methoxy or 4-nitro, and

where R<sup>4</sup> is not thienyl if R<sup>1</sup> is phenyl which is unsubstituted or substituted by 4-chloro, 4-methyl or 4-methoxy, R<sup>2</sup> and R<sup>3</sup> are hydrogen and B is chlorophenyl, and

where R<sup>4</sup> is not ethyl if both the group B and R<sup>1</sup> are 4-fluorophenyl, or

in case c:

B is unsubstituted phenyl,

R<sup>1</sup> is phenyl or naphthyl, heterocyclyl or hetaryl, where the cyclic groups can be substituted by R<sup>a</sup>,

C<sub>3</sub>-C<sub>10</sub>-cycloalkyl, C<sub>3</sub>-C<sub>10</sub>-cycloalkenyl C<sub>3</sub>-C<sub>10</sub>-cycloalkynyl

n-propyl, C<sub>4</sub>-C<sub>10</sub>-alkyl, CHC<sub>12</sub>, CH<sub>2</sub>C<sub>1</sub>, CC<sub>13</sub>, CHF<sub>2</sub>, CF<sub>2</sub>H, CF<sub>2</sub>C<sub>1</sub>, CFC<sub>12</sub>,

C<sub>2</sub>-C<sub>10</sub>-haloalkyl, C<sub>3</sub>-C<sub>10</sub>-alkenyl, C<sub>3</sub>-C<sub>10</sub>-haloalkenyl, C<sub>3</sub>-C<sub>10</sub>-alkynyl or C<sub>3</sub>-

C<sub>10</sub>-haloalkynyl;

R<sup>2</sup> is hydrogen;

$R^3$  is hydrogen, nitro, cyano, amino, methylamino, dimethylamino,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -haloalkyl,  $C_1$ - $C_4$ -alkoxy,  $C_1$ - $C_4$ -haloalkoxy,  $C_2$ - $C_4$ -alkenyl,  $C_2$ - $C_4$ -haloalkenyl,  $C_2$ - $C_4$ -alkynyl or  $C_2$ - $C_4$ -haloalkynyl,

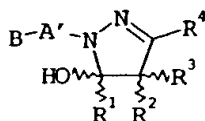
or  $R^2$  and  $R^3$  together are a group

$=O$ ,  $=S$  or  $=N-O-R^5$ , and

$R^4$  is hydrogen, halogen, nitro, cyano,  $N(R')_2$ ,  $C_1$ - $C_4$ -alkyl,  $C_1$ - $C_4$ -haloalkyl or heterocyclyl;

where  $R^1$  is not tert-butyl if  $R^4$  is  $CF_3H$  and  $R^4$  is not methyl if  $R^1$  is phenyl.

3. (amended) A 5-hydroxypyrazoline of [the] formula IB [as set forth in claim 1],



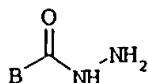
IB

in which

$A'$  is  $C=S$  or  $SO_2$

excluding compounds in which  $A'$  is  $C=S$ ,  $R^1$  [and  $R^4$  are methyl] is unsubstituted or p- $CH_3$ -, p-Br- or -p- $NO_2$ -substituted phenyl,  $R^4$  is methyl,  $R^2$  is hydrogen and  $R^3$  is hydrogen, isopropyl or isobutyl and B is phenyl or 4-methoxyphenyl.

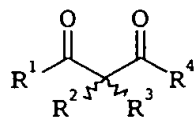
4. (amended) A process for preparing compounds of the formula IA as claimed in claim 2, which comprises reacting a hydrazine of [the] formula II,



II

in which B is as defined in claim 2,

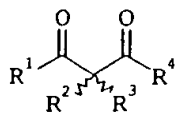
with a diketone of [the] formula III,



III

in which the substituents are each as defined in claim 2.

5. (amended) A process for preparing compounds of [the] formula IB [as claimed in claim 3,]



III

in which A' is C=S,

where B, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are as defined in claim 1,

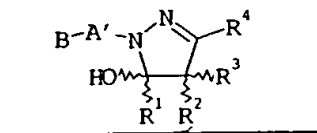
excluding compounds in which R<sup>1</sup> is unsubstituted or p-CH<sub>3</sub>-, p-Br- or -p-NO<sub>2</sub>-

substituted phenyl, R<sup>4</sup> is methyl, R<sup>2</sup> is hydrogen and R<sup>3</sup> is hydrogen, isopropyl or

isobutyl and B is phenyl or 4-methoxyphenyl,

which comprises reacting compounds of the formula I as set forth in claim 1, in which A is C=O, with Lawesson's reagent.

6. A process for preparing compounds of [the] formula IB [as claimed in claim 3,]



IB

in which A' is SO<sub>2</sub>,